Unlikely Partners – An Experiment in Multi-disciplinary Classroom Experience

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Abstract

Students can be stimulated and challenged when exposed to new ways of looking at and approaching traditional course content. This paper reports the results of a faculty "Unlikely Partners" collaboration that brought an economics professor into an *Environmental Communication* course taken by students in RIT's Civil Engineering/Environmental Management and Safety department. The collaboration provided a scenario that increased the students' engagement with the course's oral and written communication assignments and exposed them to the economic factors surrounding the assignments, especially factors related to the governmental permitting process.

Introduction

"Unlikely Partners" is the name given to a series of experimental faculty collaborations started at Rochester Institute of Technology to bring faculty from different disciplines together in the classroom and see what linkages or insights might arise from the pairings.

The collaborations arose from grassroots campus organization, the Creativity and Innovation Working Group, that included faculty, staff and student representatives from across the Institute (http://www.rit.edu/~ciwg/).[1] The Working Group was spear-headed by a faculty member from the College of Liberal Arts and started in the Spring of 2006. It grew to include a wide variety of faculty representing a broad range of disciplines from all of the Institute's seven colleges. The group's goals include bringing together the arts, sciences, humanities and technology, encouraging a dialogue on the role of creativity in teaching, learning, research, and leadership, and building collaboration among faculty, students, colleges and disciplines in co-curricular activities and courses.

During the 2006-2007 academic year the working group directed its efforts towards advocating and sponsoring two activities. In the Spring of 2007 it staged a day-long campus-wide symposium entitled "Creativity: Technology: Invention" (http://www.rit.edu/~ciwg/symposium.php3).[2] The activities included guest speakers, panel discussions, entertainment, student design project demonstrations, student creativity contests, and exhibitions of digital art, photography and mural displays of student writing. In addition, during the year the Working Group encouraged cross disciplinary faculty interchange through "Unlikely Partners" activities.

Unlikely Partners

Although faculty interchange and dialogue occurs across RIT's campus through a variety of mechanisms, including an Academic Senate, service on Institute-wide committees, campus wide programs such as an annual Faculty Institute on Teaching and Learning, and other programs, rarely do faculty members from different disciplines interact within a classroom setting.

The "Unlikely Partners" activities sought to pair faculty members from different colleges within a classroom setting to see if a cross-disciplinary approach might excite the classroom and enhance the learning experience.[3] During the 2006-2007 academic year, three of these activities took place.

The first was a collaboration between professors from the Department of English in the College of Liberal Arts and the Mechanical Engineering Department in the College of Engineering in a poetry class. As the class looked at 19th century poetry, the engineering professor explained how electricity was generated and distributed across the country. Students then examined the impact of the onset and spread of electrification on the poetry produced after its arrival, especially the technology's effect on language and metaphor.

The second collaboration occurred between professors from the Department of Information Technology in the College of Computer and the Department of Economics in the College of Liberal Arts. Together they assembled an interactive lecture that explored digital rights, looking at the economics of rights in an historical context and examining rights policies on slavery and the trading of environmental emissions rights. The result provided a broad context to examine how government policies and economics can affect the future of digital rights.

The third collaboration, the focus of this paper, involved a simulated Farm Aid concert.

The Environmental Communication Farm Aid Concert

This "Unlikely Partners" collaboration involved a professor from the Department of Economics in the College of Liberal Arts joining a class in *Environmental Communication* offered to students in the Civil Engineering Technology/Environmental Management and Safety department of the College of Applied Science and Technology. The class objectives are intended to hone student communication skills by introducing them to the formats and requirements of a variety of focused documents that are encountered in the workplace, including proposals, instructions, customer or client letters, memos, and e-mail, and various types of reports and having them write effectively in assignments using them. Practice and instruction in oral presentation and reporting is included.

For the "Unlikely Partners" collaboration, the class was introduced to a scenario that had a well known musician (in the manner of Willie Nelson) who wanted to promote and stage a "Farm Aid" type concert to raise money to help support small scale and family farmers. The concert

location was to be federally-owned property controlled by the Bureau of Land Management. For the class, the economics professor assumed the role of this musician/concert promoter.

The students in the class were divided into groups and were asked to act as if each group was an independent consultancy striving to be chosen to help the musician/promoter expeditiously obtain all the government permits needed to stage the concert. As a final project, they would vie with each other, preparing written proposals and giving an oral presentation designed to persuade the musician/promoter to contract with them for the needed services.

As a group, students helped set the scope of the concert and, working with actual BLM manuals and application forms, analyzed the effort that would be needed to ensure the conditions for all necessary permits were met in a timely fashion.[4] The economics professor visited the class three times. On the first visit, he presented an overview of his plans for the concert and provided students with background information on the economic situation faced by small farms and the forces at play in their survival. He also described the origin and history of the Farm Aid concert. Based on this first meeting, students were asked to create an inter-office memo (internal communication) alerting co-workers to the business opportunity represented by the concert and its need for BLM permits and a letter (external communication) to the musician/concert promoter as a follow-on to the meeting.

The economics professor visited class a second time for a question-and-answer session based on their work to that date. This interchange, similar to a bidders' conference for a new business proposal, provided the students with additional information on the expectations for the concert and those factors that would be critical in obtaining the permitting. The economics professor encouraged the students to carefully consider the permitting agency's charge of choosing events-and the scale of those events-that in some manner maximizes the public's "utility" from the sites. Discussion of the steps involved in environmental cost/benefit analysis followed, most of which require close collaboration between engineers, economists and others. Those steps were linked to how agencies ultimately decide upon the optimal scale of events at different sites, and to the optimal prices to charge for site permits. Effectively communicating recognition of the agency's public charge and of the cost/benefit analysis agencies bring to bear on permitting decisions maximizes the likelihood of successful permit application.

The final visit to the class by the economics professor was to hear oral presentations of the student group proposals. The professor pointed out that some of the costs the students added to their bids were "fixed" −in that they would be the same regardless of the size of the event− while some costs were "variable" and therefore dependent upon the scale. The students and faculty also discussed ways of designing the contract that would enable the parties to share any unanticipated cost overruns. A discussion of the cost to acquire the permits was then related back to the discussion earlier in the course regarding the government's cost/benefit reasoning that leads to the estimation of efficient site permit prices.

Evaluation

Students were asked to evaluate the "Unlikely Partners" aspect of the course. Five rating questions and five open-ended questions were posed to the class. The results of the rating indicate that the class exercise slightly increased student interest in the subject (environmental

communication) from another viewpoint and made them think about how different fields of study might be connected. The student responses showed that there was strong support for the concept of bringing faculty from different disciplines together. The results of the ratings questions are shown below.

STUDENT EVALUATIONS

Question	**Average Response***
The project and talks increased my interest in examining the subject from another viewpoint.	**3.66**
The talks and project made me think of ways I could connect my own field of study to another field or discipline.	**3.66**
The talks gave me some ideas for a project.	**3.11**
I would like to see more faculty presentations that bring two disciplines together in an unlikely way.	**4.44**
I would like the opportunity to be an "Unlikely Partner" with a student from another discipline…	**3.55**

***** 1= Strongly agree
2 = Disagree
3 = Neither agree nor disagree
4 = Agree
5 = Strongly Agree

9 respondents / 10 students class total

The open-ended questions showed that students were engaged by the exercise. They noted being surprised in the interconnectivity of the different disciples, the situation faced by some farmers, and the fact that the exercise made "economics sound interesting." Students also registered surprise at the amount of work required by the project and how it did come together at the end of the term. Not all students agreed and one noted that the class had become a "long-winded economics lecture" and questioned its relevance to the course.

Discussion

The "Unlikely Partners" project was successful in a number of areas. The Farm Aid scenario provided context to the student written and oral assignments that increased their interest and allowed them to clearly understand why their communication had to be effective. The competition between groups further increased that interest.

The most valuable aspect of the collaboration was the contributions of the visiting faculty member from the Department of Economics. Many of the students had not heard of the Farm Aid concerts and knew nothing about their history or the economic situation facing some farmers. This eye-opening information set the stage for the projects the class was to undertake. The professor also provided the students with important insights on how the cost estimates in

proposals are looked at and evaluated and left them with a clear understanding of the many factors that a government agency considers as it determines the fees required to apply for a permit as well as whether it is granted or not.

In addition, the economics professor learned multiple lessons regarding effective communication and the promise of interdisciplinary teaching and research. For instance, he had not engaged in a class project of this magnitude (one course-long assignment to which three teams of students would dedicate themselves) and he developed ideas for implementing such a structure in his economics courses. He also learned new ways of communicating abstract economic ideas to non-economists, and new ways of understanding information from others with different specializations. Using Farm Aid and the environmental permitting process in this particular assignment presented all of the specialists involved a metaphorical platform for accomplishing the effective communication of the key abstract concepts (e.g., how information is represented and transmitted, how value and cost is defined, and how layers of agreements are formed and enforced).

This "Unlikely Partner" collaborations involved far more than having a guest lecturer visit a class but was much less involved than having faculty members team-teach a course. Collaborations like these present some problems. These were all done voluntarily and the economics professor was able to give generously of his time because of his own commitment to the concept of innovative teaching and classroom strategies. Course loads and the other demands might make it difficult for many faculty to engage in collaborations of this type. Without a group like the Creativity and Innovation Working Group at RIT to stimulate collaborations such as those done by "Unlikely Partners", their occurrence will likely be rare.

In addition, there were no specific course objectives added or changed for the collaboration. Student expectations were the same as for other offerings of the same course and the students' learning relative to the economic information they received was considered a bonus and was not evaluated. In an ideal situation, the inclusion of new objectives relative to the collaboration could help fully integrate future collaborations of this sort.

Overall, the "Unlikely Partners" concept provided an opportunity to reenergize this class and provide the students with fresh perspectives based on the innovative scenario used in the class and the considerations brought by introducing a completely different field of study, economics. The results of this experience indicate that collaborations of this type can be very valuable for the faculty involved and their students and the introduction of information, problems and viewpoints from another field into a class can provide students with an enhanced sense of the multidisciplinary nature of most contemporary endeavors they will face in their professional careers.

References

1. *RIT Creativity and Innovation Working Group, http://www.rit.edu/~ciwg/*

2. *"Creativity: Technology: Invention"* (http://www.rit.edu/~ciwg/symposium.php3)

3. Fink, L. Dee, 2003, *Creating Significant Learning Experiences: An Integrated Approach to Designing College Courses*, San Francisco: San Francisco

4. *BLM Recreation Permit Administration Handbook*, BLM Handbook H-2930-1, Recreation Permit Administration (Public), 2006

Biography

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